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## Two orbiters inspected for contaminants

## ISS crew testing bacteria detection, motor skills and more

Shuttle Update: Shuttle program managers decided last week to inspect the main propulsion systems on Atlantis and Endeavour for contamination after a small amount of material was found during routine post-flight inspections in one engine that flew on the STS-116 mission of Discovery in December 2006 and one engine that flew on the STS-121mission of Discovery in July 2006.

The contaminant is a substance called RepliSet, which is a material used to make a mold of the flow liner surface. It is used to check for cracks and imperfections. The inspections can be accomplished within the time frame of the hail damage recovery effort, with no impact to the launch schedule for the upcoming mission STS-117.

NASA hosts a media teleconference **today** no earlier than 6 p.m. to discuss the Space Shuttle Atlantis' external fuel tank, which was damaged during a Feb. 26 hail storm. The teleconference follows a meeting to decide whether the tank will be used for STS-117. The briefing participants are Bill Gerstenmaier, associate administrator of Space Operations; Wayne Hale, manager of the Space Shuttle Program; and John Honeycutt, deputy manager of the External Tank Project.

Did You Know? You can still get a spring discount on massage therapy through Friday. A 30-minute massage is \$20. Contact Valerie (L.M.T. #19362) at 867-4762 or *Valerie.s.jaramillo@nasa.gov.* Hours of operation are 9 a.m. to 5 p.m. Monday to Friday in Room 1023 of the O&C Building.

♦ ISS Update: The Expedition 14 crew members performed periodic fitness evaluations last week. Additionally, they worked on a videotape recorder and on a faulty light of an ophthalmoscope that was used during a health check. They downloaded information from the Internal Wireless Instrumentation System, or IWIS, which monitors the health of the station's systems.

The crew continued scientific activities aboard the station. Flight Engineer Suni Williams tested a bacteria detection instrument developed by researchers at Marshall Spaceflight Center in Huntsville, Ala., and industry partners. The device, Lab-On-a-Chip Application Development Portable Test System, or LOCAD-PTS, is a portable bacteria detection system small enough to fit into a compact ice cooler. Four more sessions with LOCAD-PTS are planned for upcoming weekend science sessions.

Commander Michael Lopez-Alegria and Flight Engineer Mikhail Tyurin tested their hand-eye coordination by completing their sixth sessions with the Test of Reaction and Adaptation Capability experiment. The experiment studies whether the decline of motor skills during spaceflight is a result of the brain adapting to space. The hand-eye coordination test is performed before, during and after the mission.

The crew also continued its work with the Anomalous Long-Term Effects in Astronauts' Central Nervous System experiment. Using an instrumented helmet, the experiment measures the cosmic radiation that passes through a crew member's head, brain activity and visual

perception. The experiment should help researchers better understand what levels of cosmic radiation crew members are exposed to and develop countermeasures for future long-duration spaceflights.

- The 9th NASA-ESA Workshop on Product Data Exchange Mentor Graphics Corporation, a technology leader in electronics design automation, will host this year's workshop in Santa Barbara, Calif., May 2-4. Please visit the workshop Web site at mentor.com/nasa-pde for more information and to register.
- Identifying and Reporting Unsafe Conditions or Hazards The best way to prevent mishaps is to identify and eliminate unsafe conditions or hazards.

The easiest way to identify them is to pay attention to what is around you and consciously look for conditions that are not safe or potentially hazardous. Unsafe conditions or hazards include ripped or frayed carpet (a tripping hazard), light switch missing its cover plate (an electrical shock hazard), faded crosswalk paint (a potential employee injury), and more.

If you identify an unsafe condition or hazard, report it to your supervisor and, if necessary, to the appropriate trouble call organization for corrective action: SGS Duty Office, 853-3231, or USA Trouble Call Desk, 861-6342.

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